09690273.101700

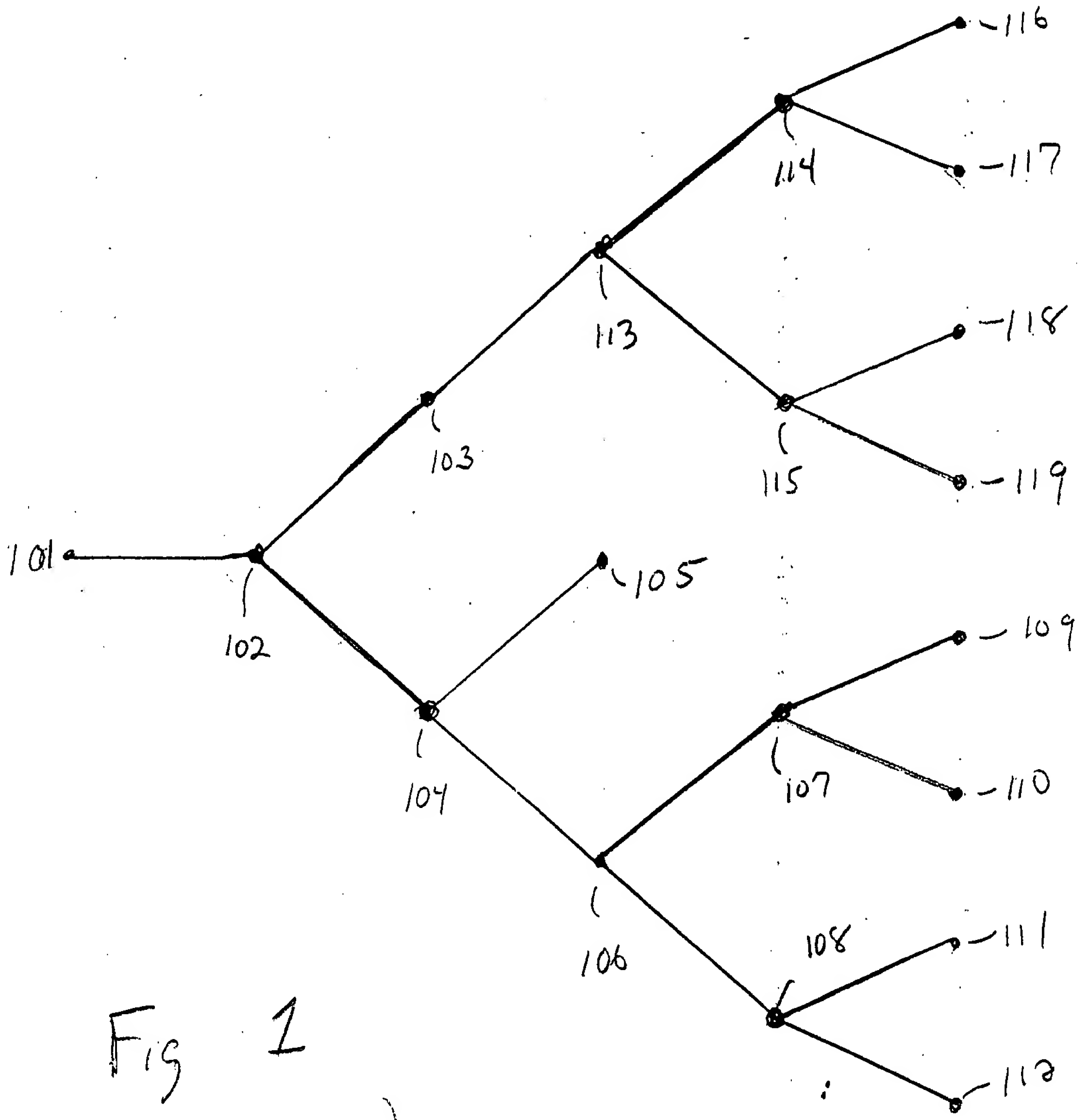

Fig 1
(Prior Art)

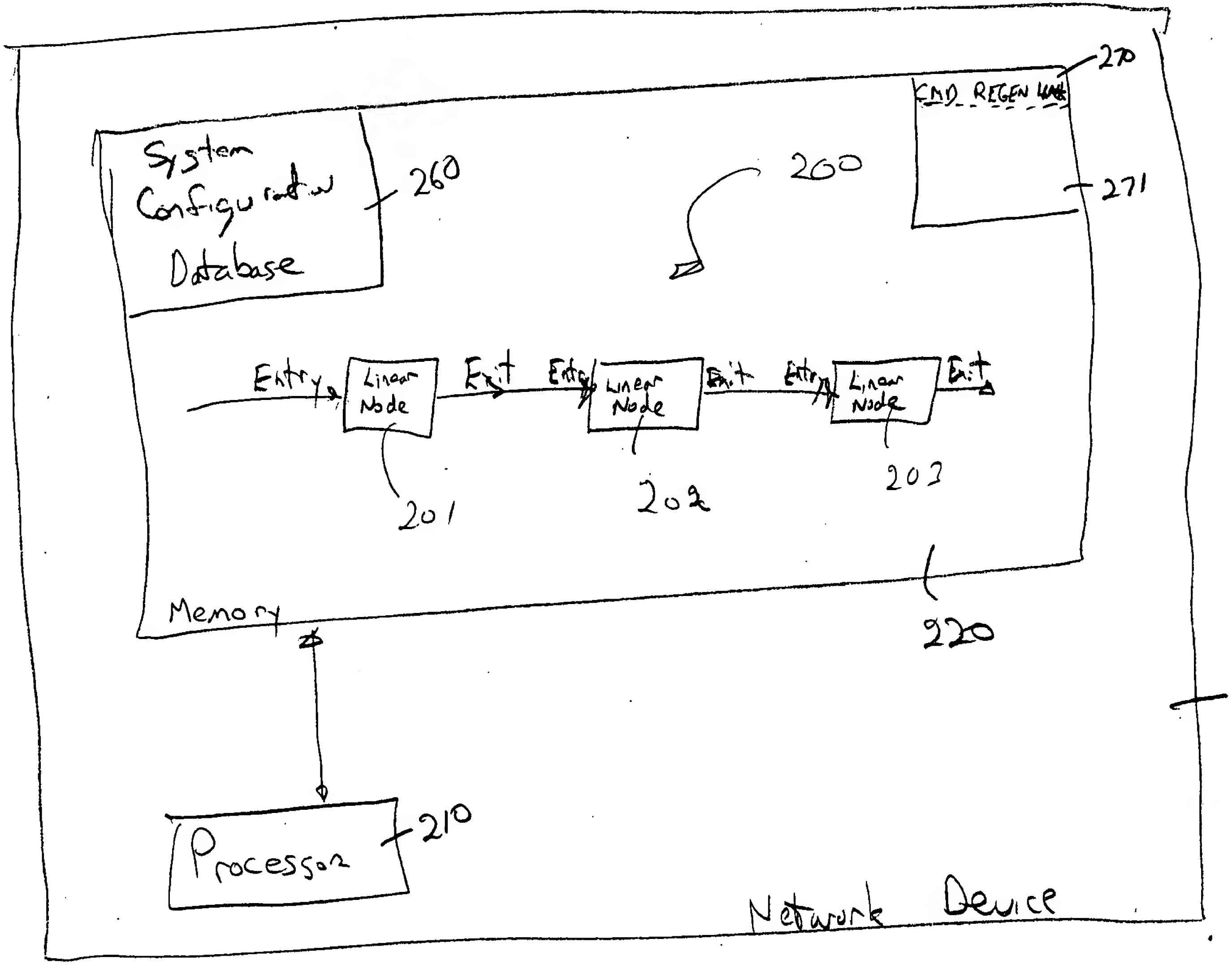
System Configuration Database
260
CMD REGEN
270
271
200
Entry
Linear Node
Exit
Entry
Linear Node
Exit
Entry
Linear Node
Exit
201
202
203
Memory
220
Processor
210
Network Device
230

Fig 2A

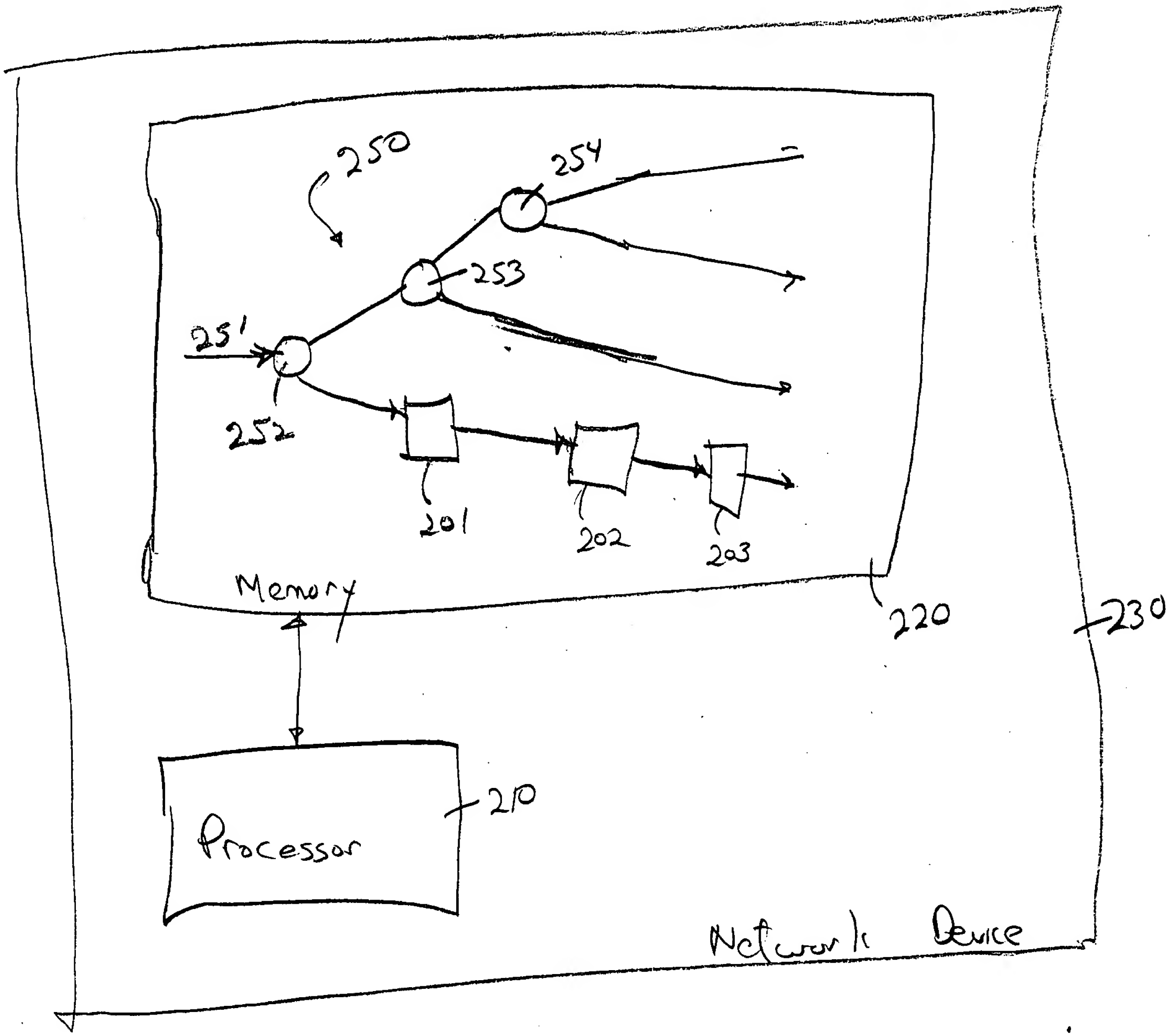
250
254
253
251
252
201
202
203
Memory
220
230
Processor
210
Network Device

Fig. 2B

4/20

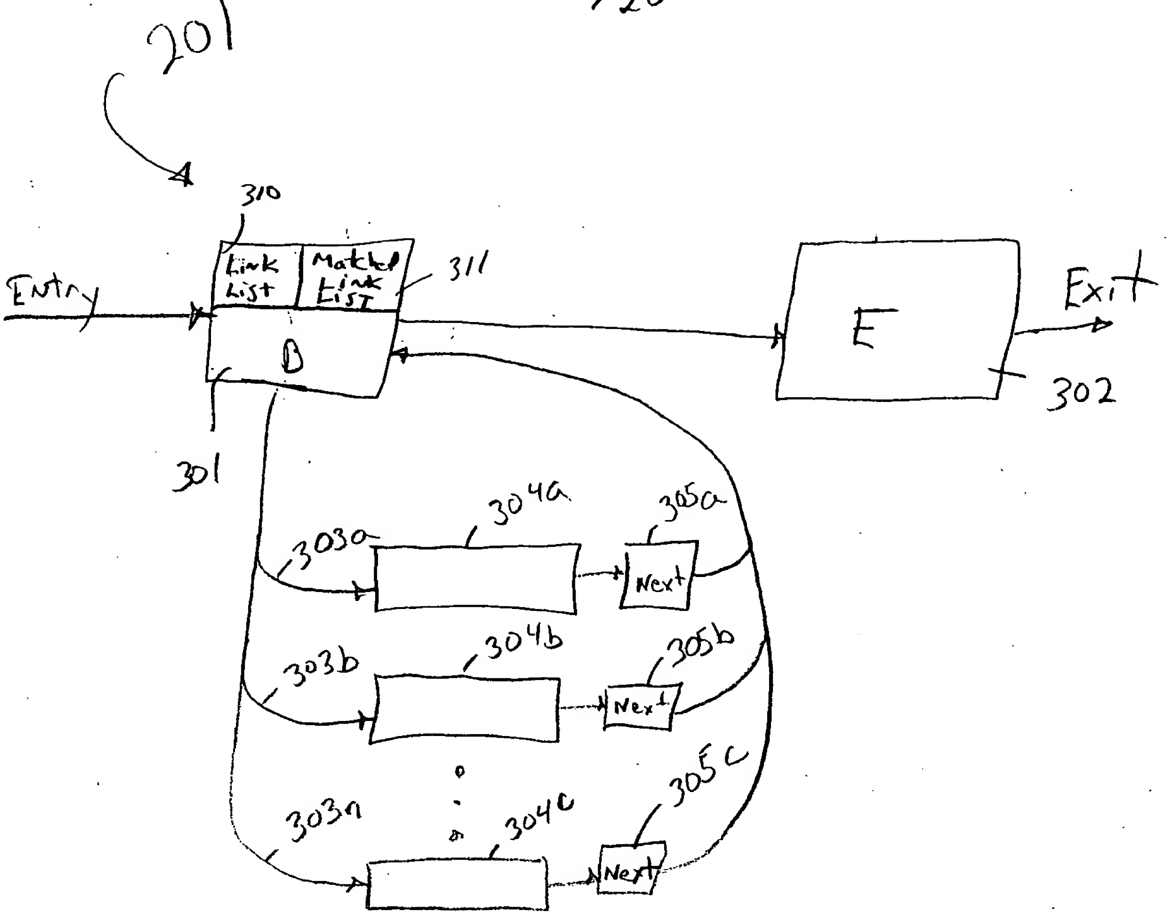
201
310
Link List
Matched Link List
311
Entry
B
301
E
302
Exit
303a
304a
305a
Next
303b
304b
305b
Next
303n
304c
305c
Next

Fig. 3

09622743.010700

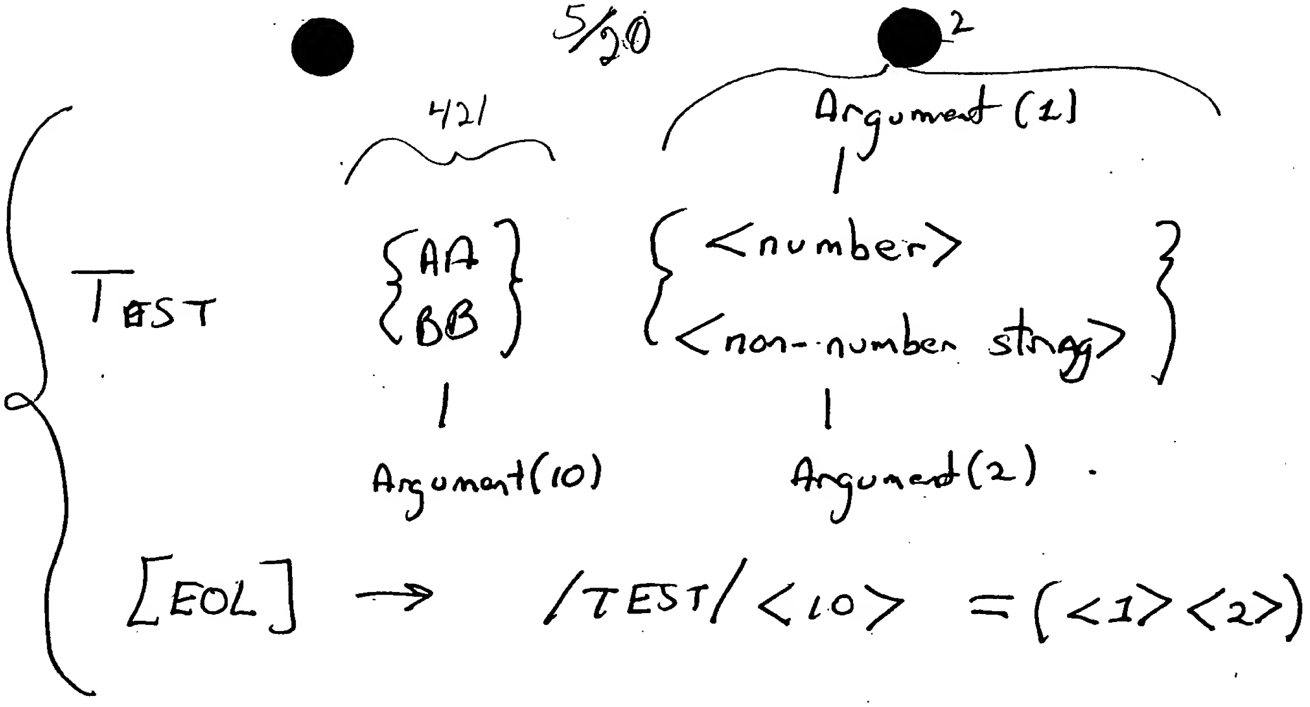

Fig. 4A
(Prior Art)

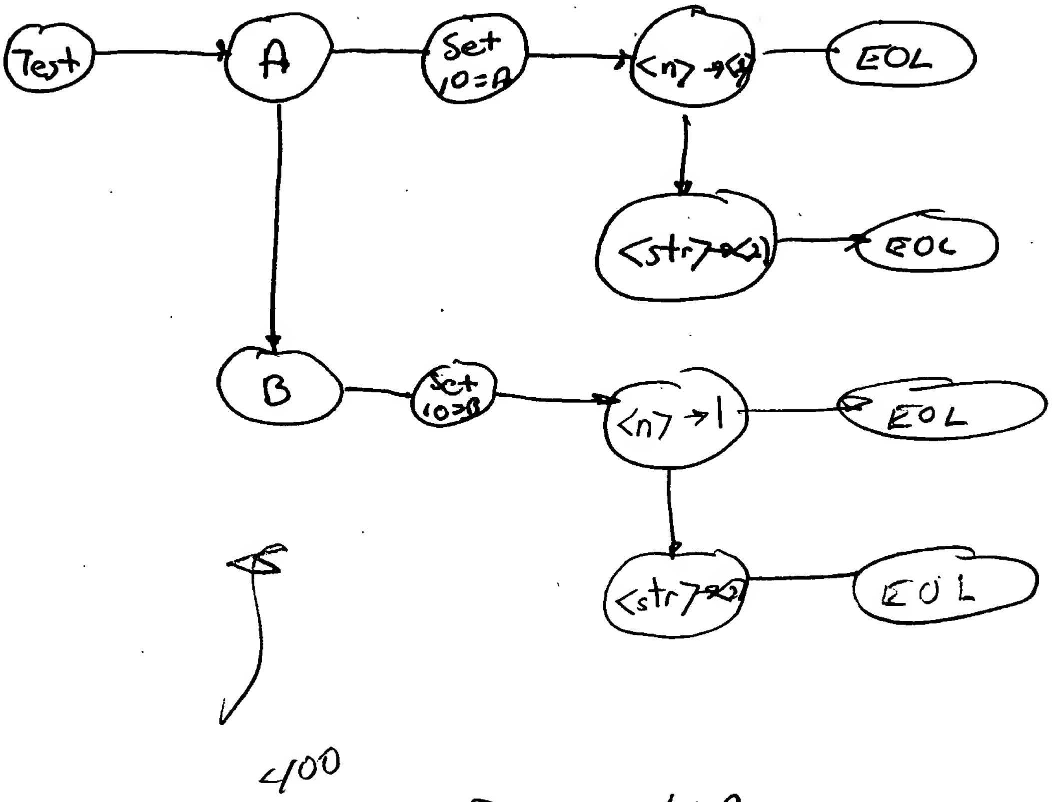

Fig. 4B
(Prior Art)

```
TEST  A  [SET(10) = A]  [<n> → <1>]
TEST  A  [SET(10) = A]  [<string> → <2>]

TEST  B  [SET(10) = B]  [<n> → <1>]
TEST  B  [SET(10) = B]  [<string> → <2>]
```

Fig. 4C
(Prior Art)

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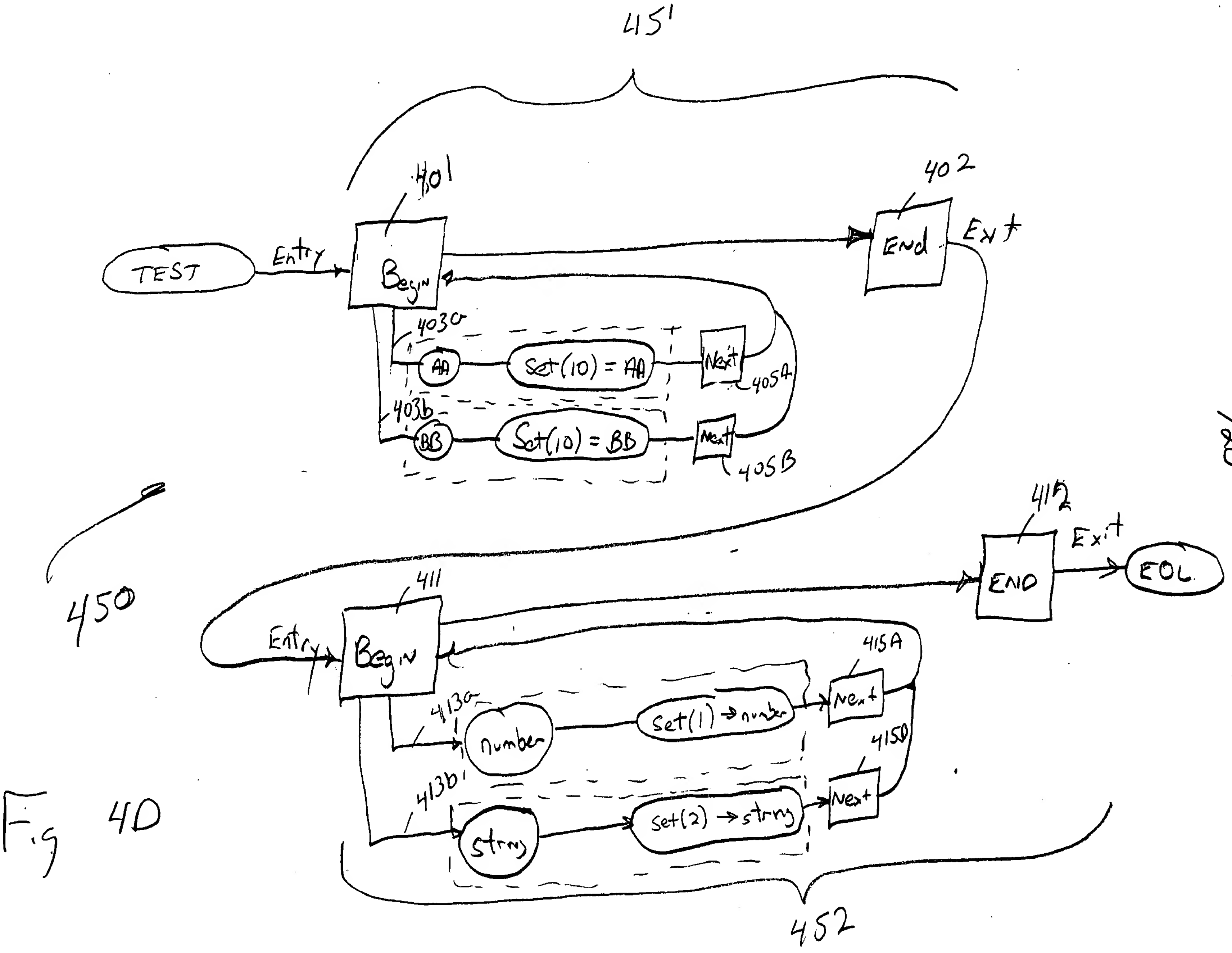
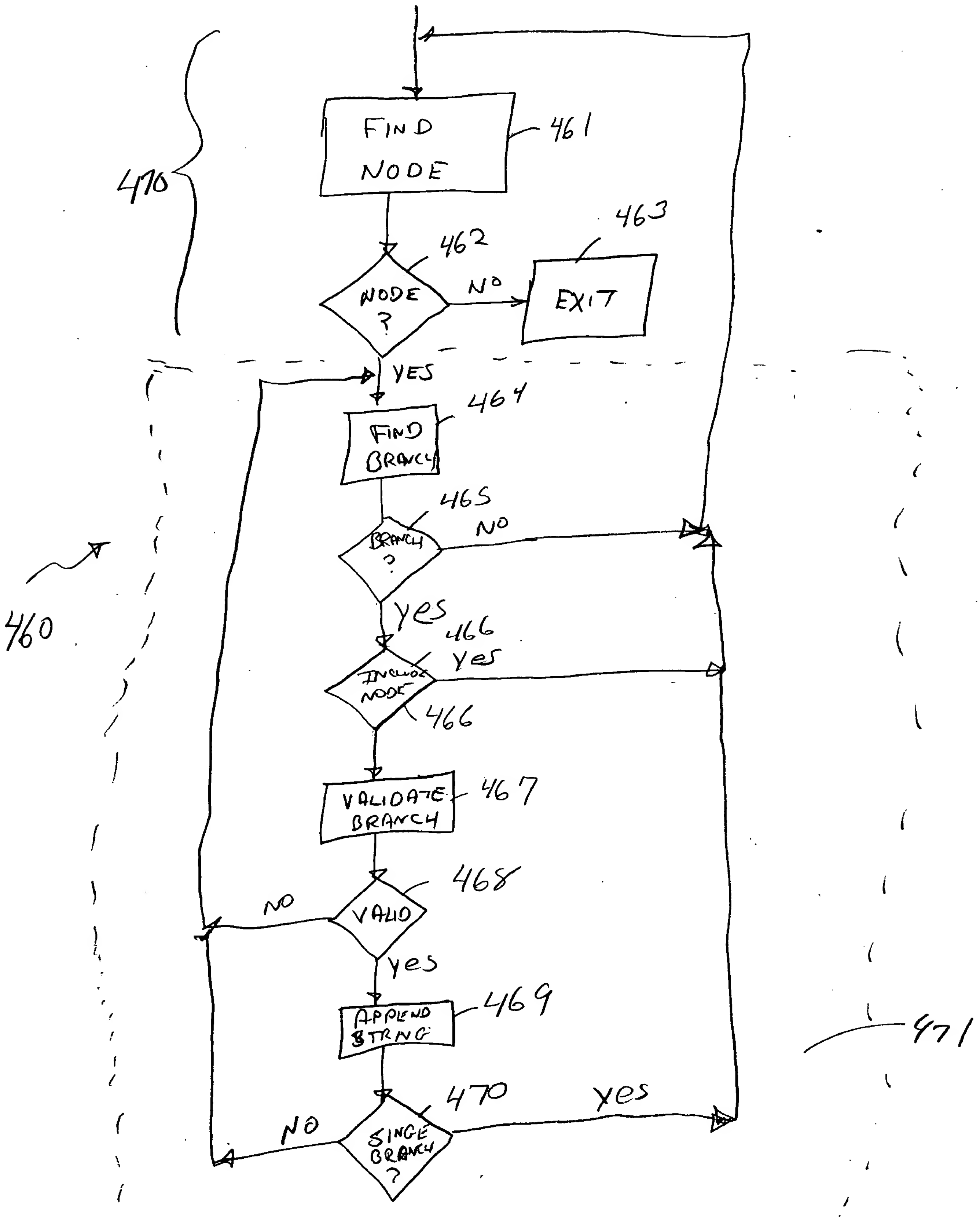


Fig 4D



EVALUATE BRANCHS - Fig. 4E

09592273.101700

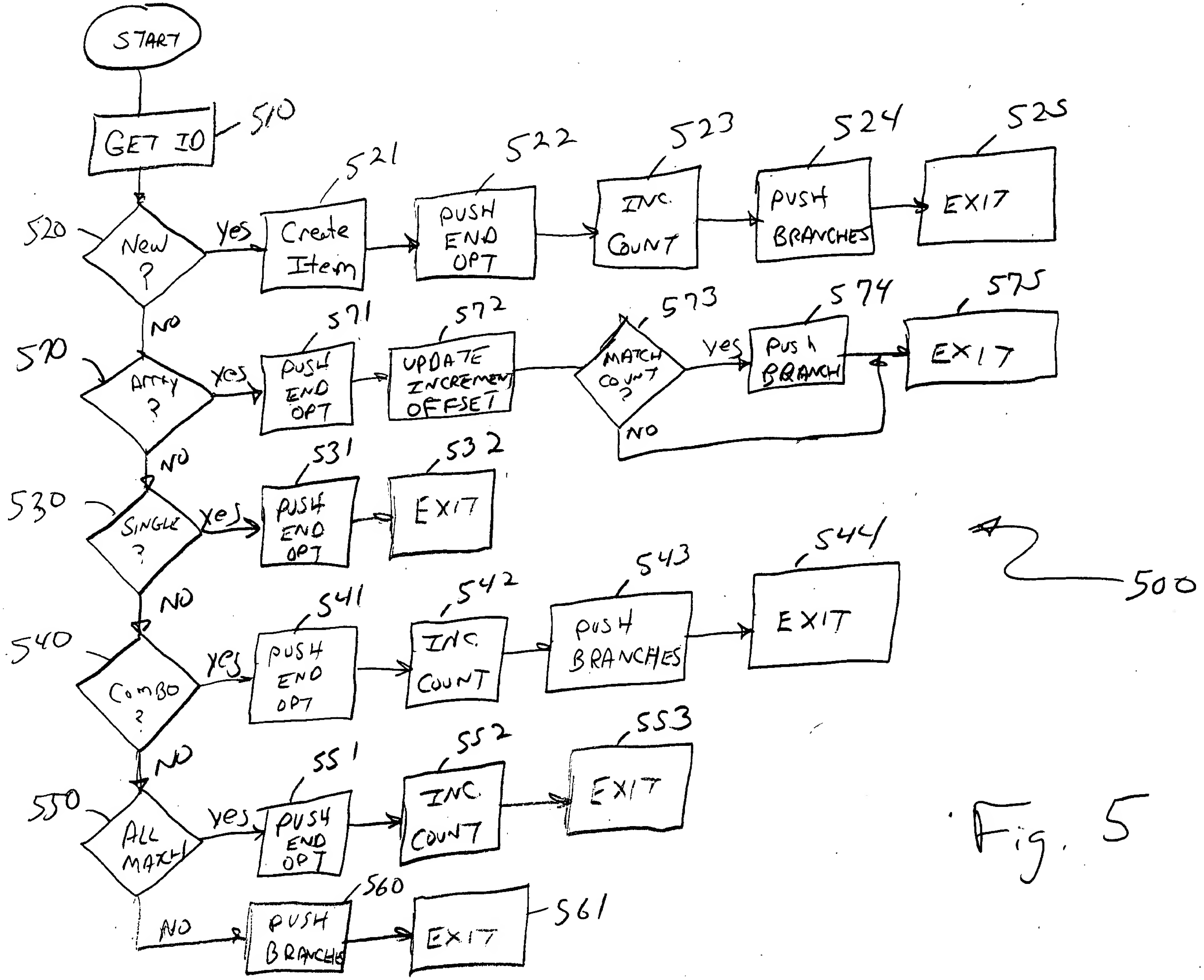

START
GET IO
510
New ?
520
yes
Create Item
521
PUSH END OPT
522
INC. COUNT
523
PUSH BRANCHES
524
EXIT
525
NO
Array ?
570
yes
PUSH END OPT
571
UPDATE INCREMENT OFFSET
572
MATCH COUNT ?
573
yes
Push BRANCH
574
EXIT
575
NO
NO
SINGLE ?
530
yes
PUSH END OPT
531
EXIT
532
NO
Combo ?
540
yes
PUSH END OPT
541
INC. COUNT
542
PUSH BRANCHES
543
EXIT
544
NO
ALL MATCH
550
yes
PUSH END OPT
551
INC. COUNT
552
EXIT
553
NO
PUSH BRANCHES
560
EXIT
561
500

Fig. 5

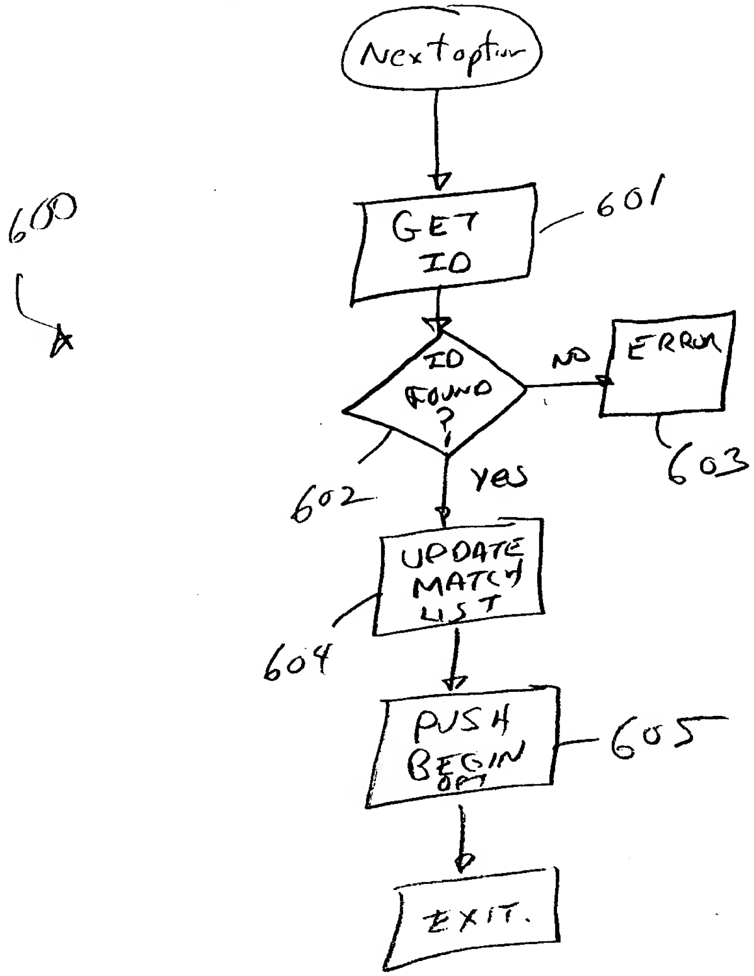


Fig 6

09560273.101700

09502273.102700

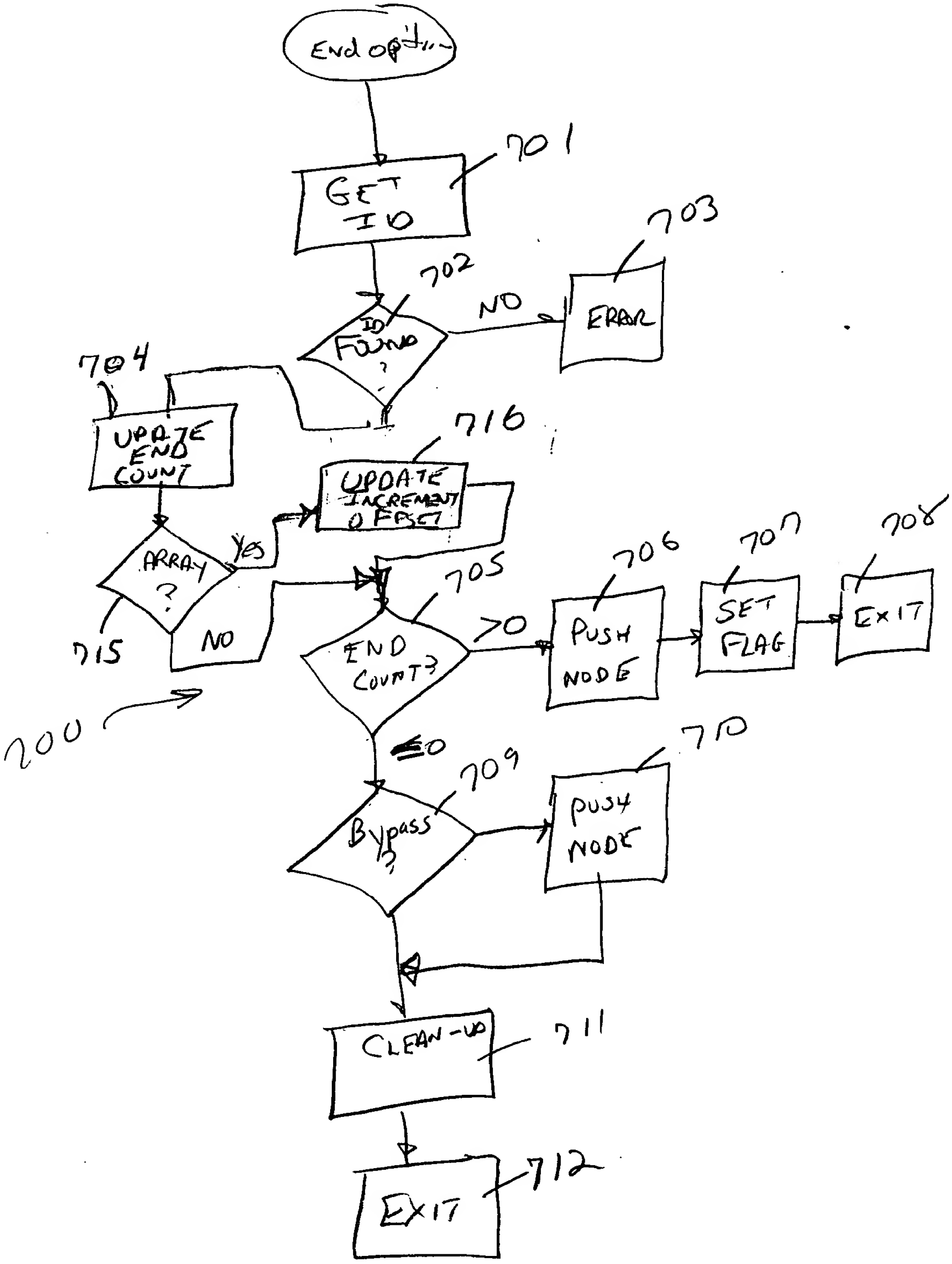


Fig. 7

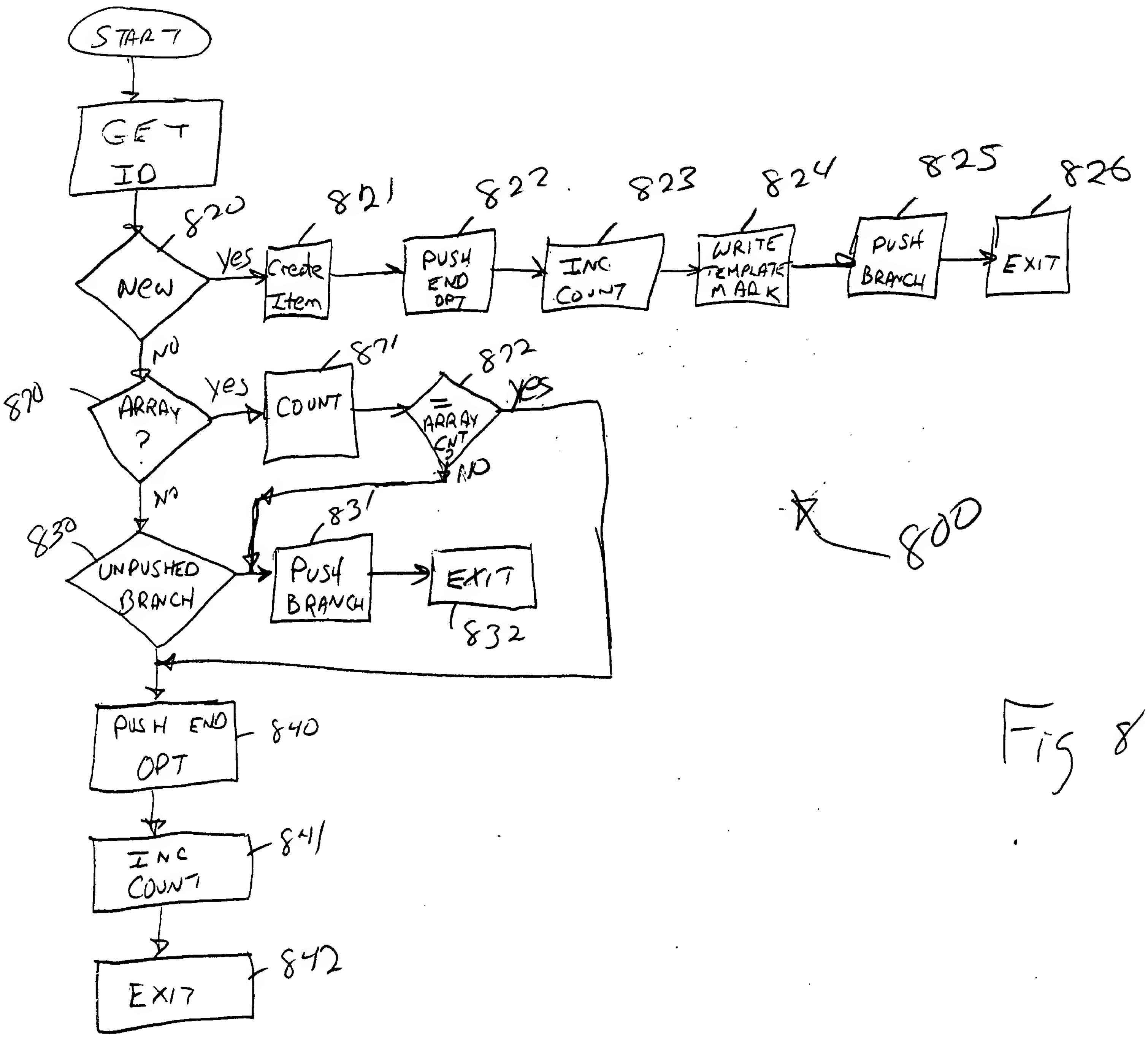

START
GET ID
NEW
820
yes
Create Item
821
PUSH END OPT
822
INC COUNT
823
WRITE TEMPLATE MARK
824
PUSH BRANCH
825
EXIT
826
NO
ARRAY ?
870
yes
COUNT
871
= ARRAY CNT ?
872
yes
NO
NO
UNPUSHED BRANCH
830
PUSH BRANCH
831
EXIT
832
PUSH END OPT
840
INC COUNT
841
EXIT
842
800

Fig 8

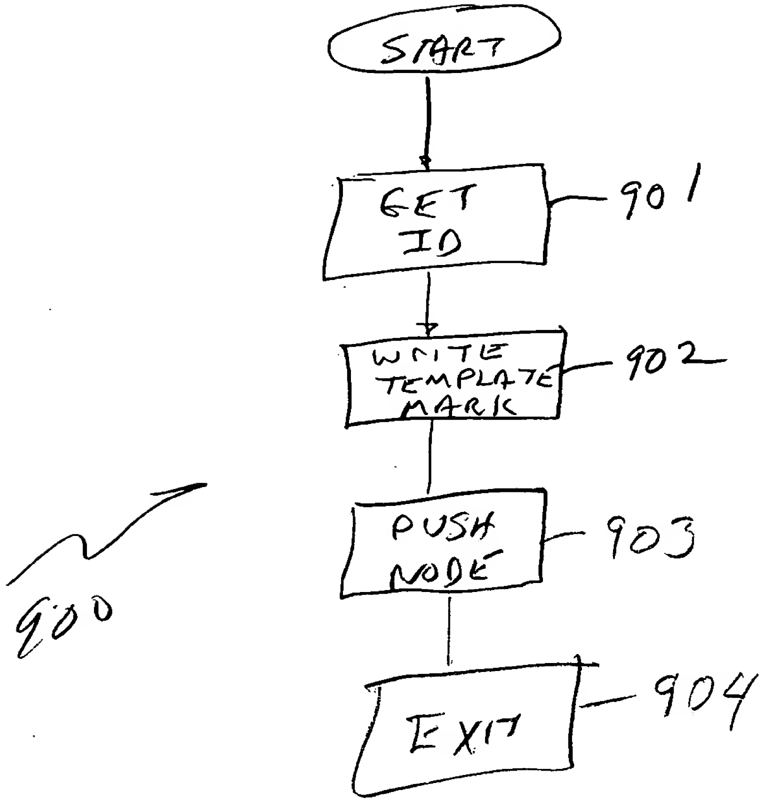


Fig. 9.

09690273 .101700

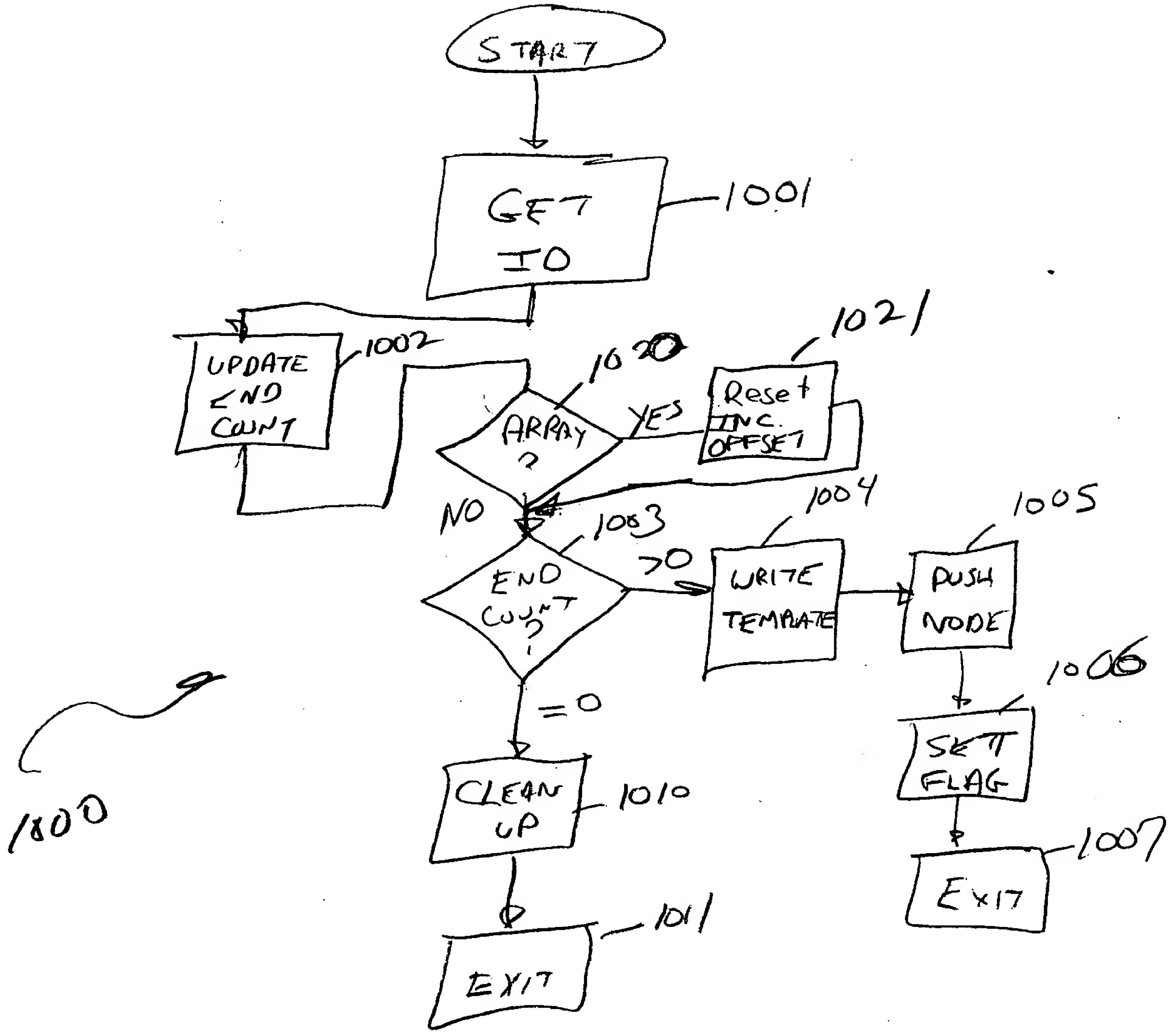


Fig. 10

09602273.101700

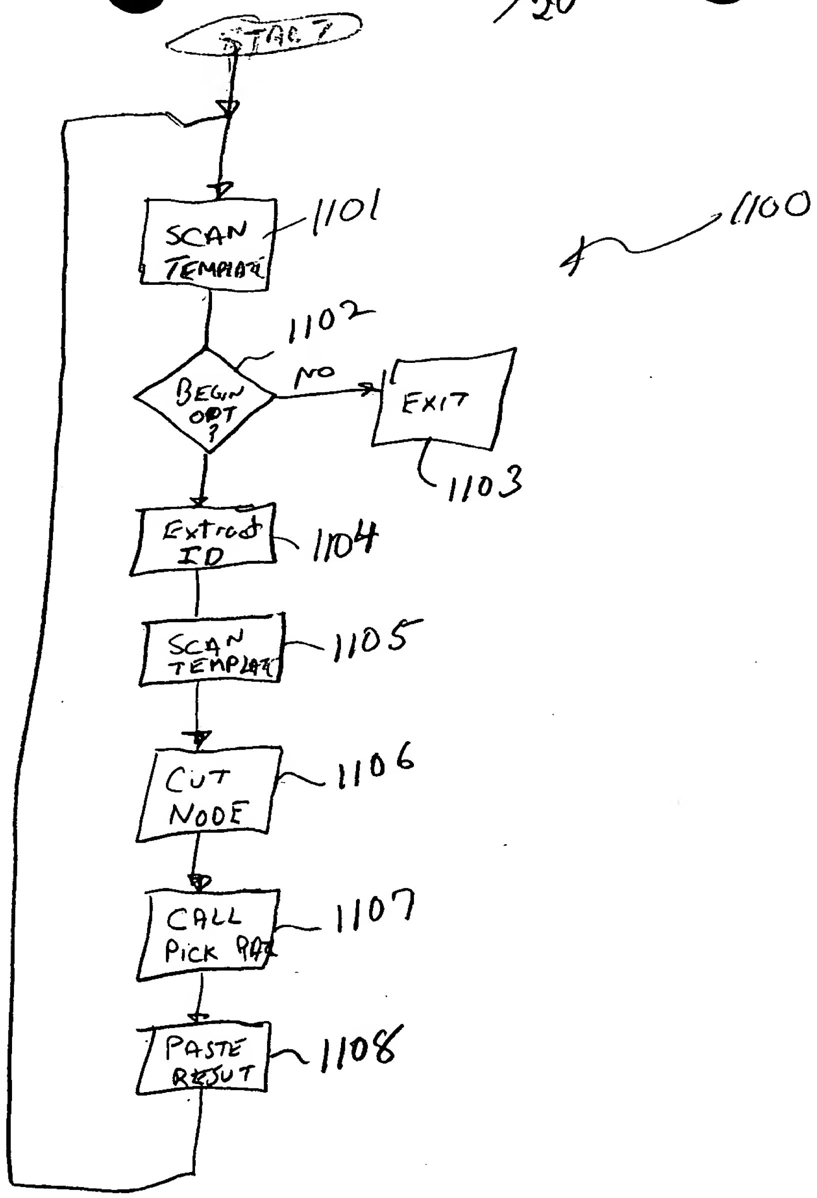
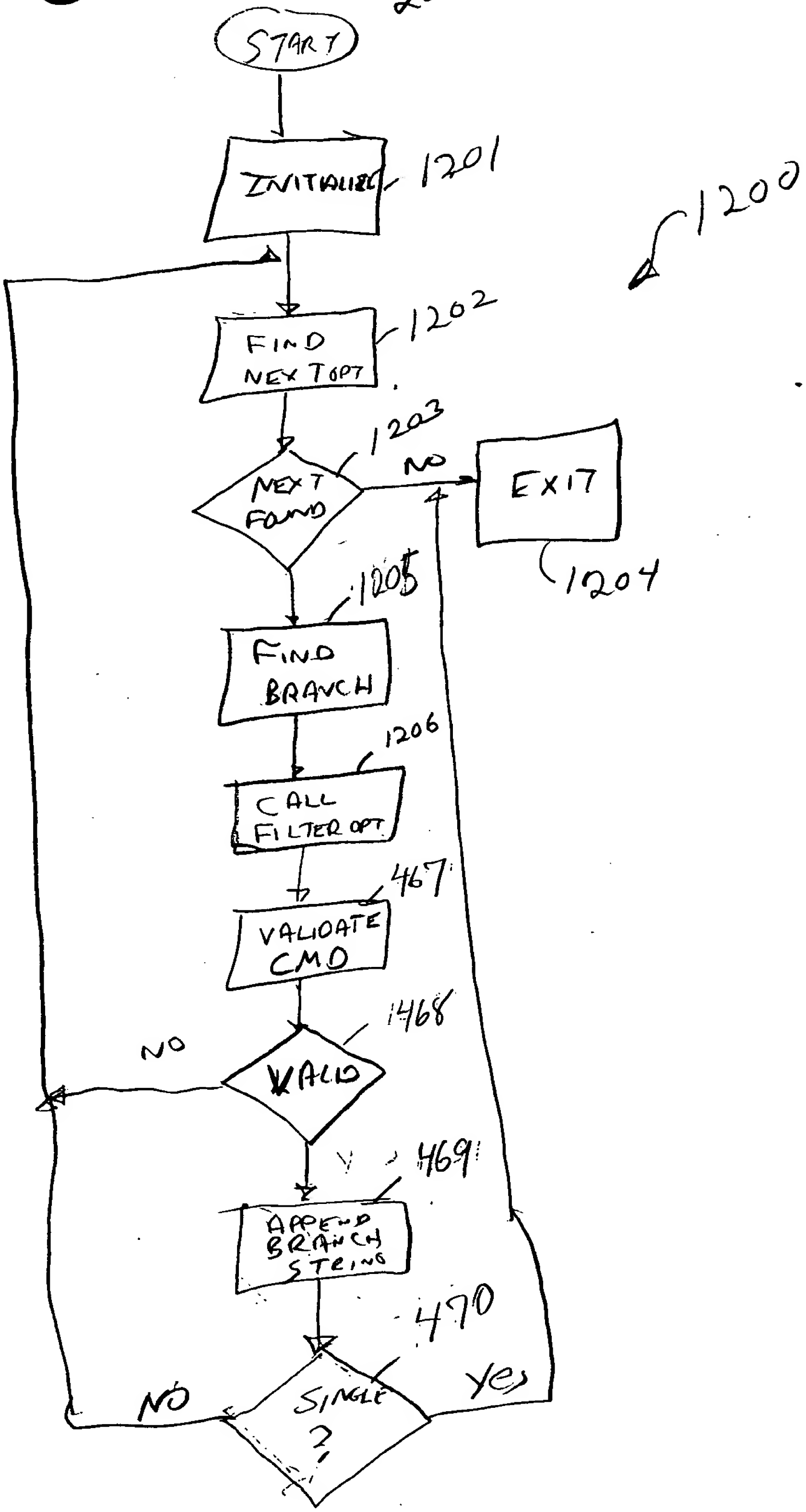


Fig. 11

09690273.101700


START
INITIALIZE
1201
1200
FIND NEXT OPT
1202
NEXT FOUND
1203
NO
EXIT
1204
FIND BRANCH
1205
CALL FILTER OPT
1206
VALIDATE CMD
467
VALID
1468
NO
Y
APPEND BRANCH STRING
469
SINGLE ?
470
NO
Yes

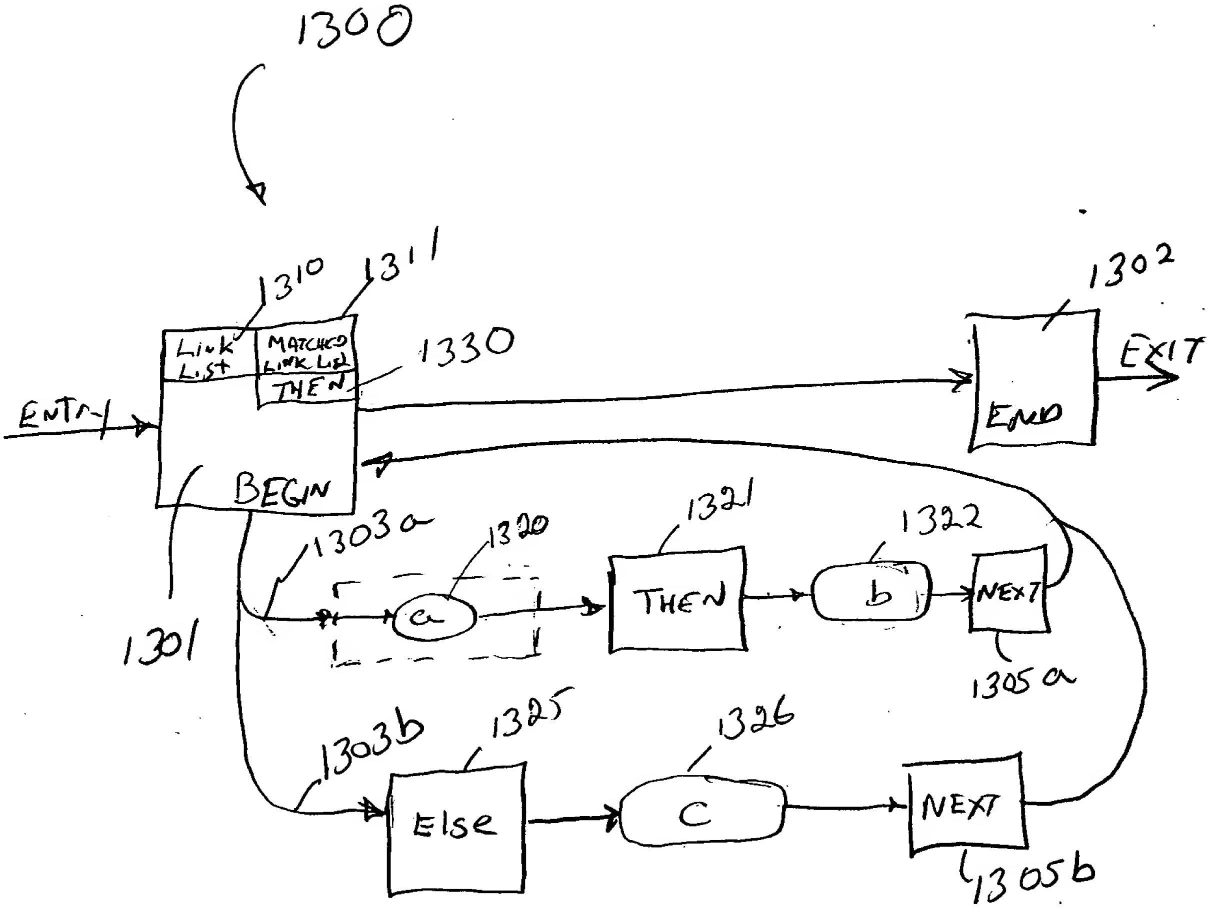


Fig. 13

09690273.101700

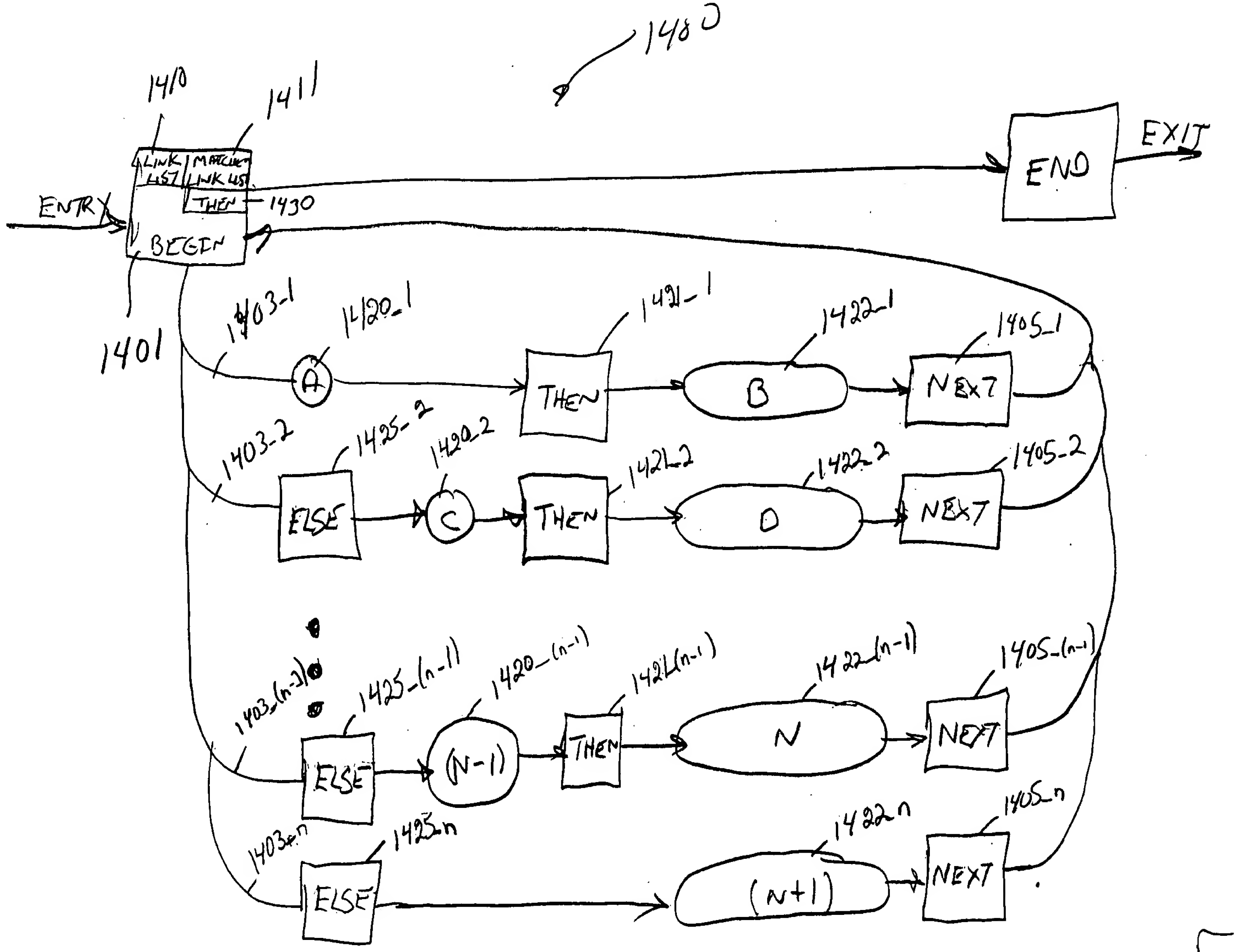

1400
1410
1411
LINK LIST
MATCHING LINK LIST
THEN
1430
ENTRY
BEGIN
1401
END
EXIT
1403-1
1420_1
A
THEN
1421-1
B
1422-1
NEXT
1405_1
1403-2
ELSE
1425-2
1420-2
C
THEN
1421-2
D
1422-2
NEXT
1405-2
1403-(n-1)
ELSE
1425-(n-1)
1420-(n-1)
(N-1)
THEN
1421-(n-1)
N
1422-(n-1)
NEXT
1405-(n-1)
1403-n
ELSE
1425-n
(N+1)
1422-n
NEXT
1405-n

Fig. 14

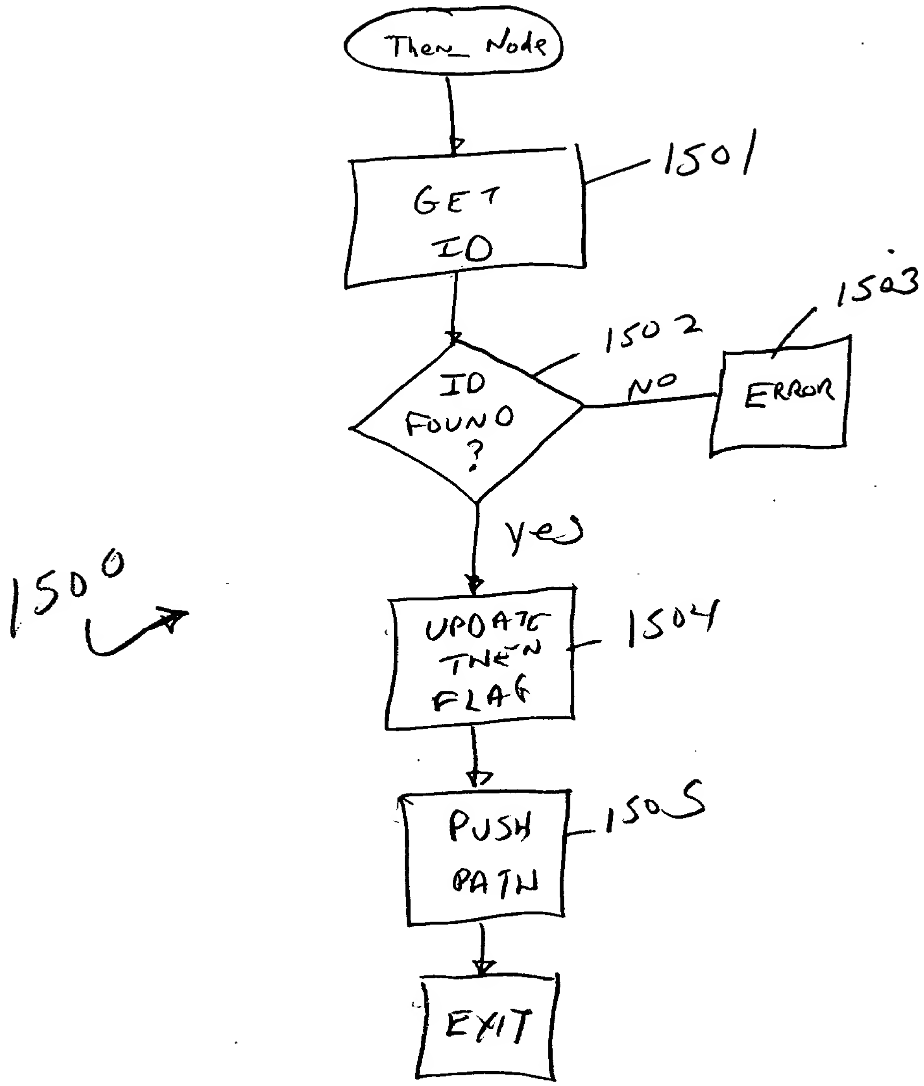

Then_Node
GET ID
1501
ID FOUND ?
1502
NO
ERROR
1503
yes
UPDATE THEN FLAG
1504
PUSH PATH
1505
EXIT
1500

Fig. 15

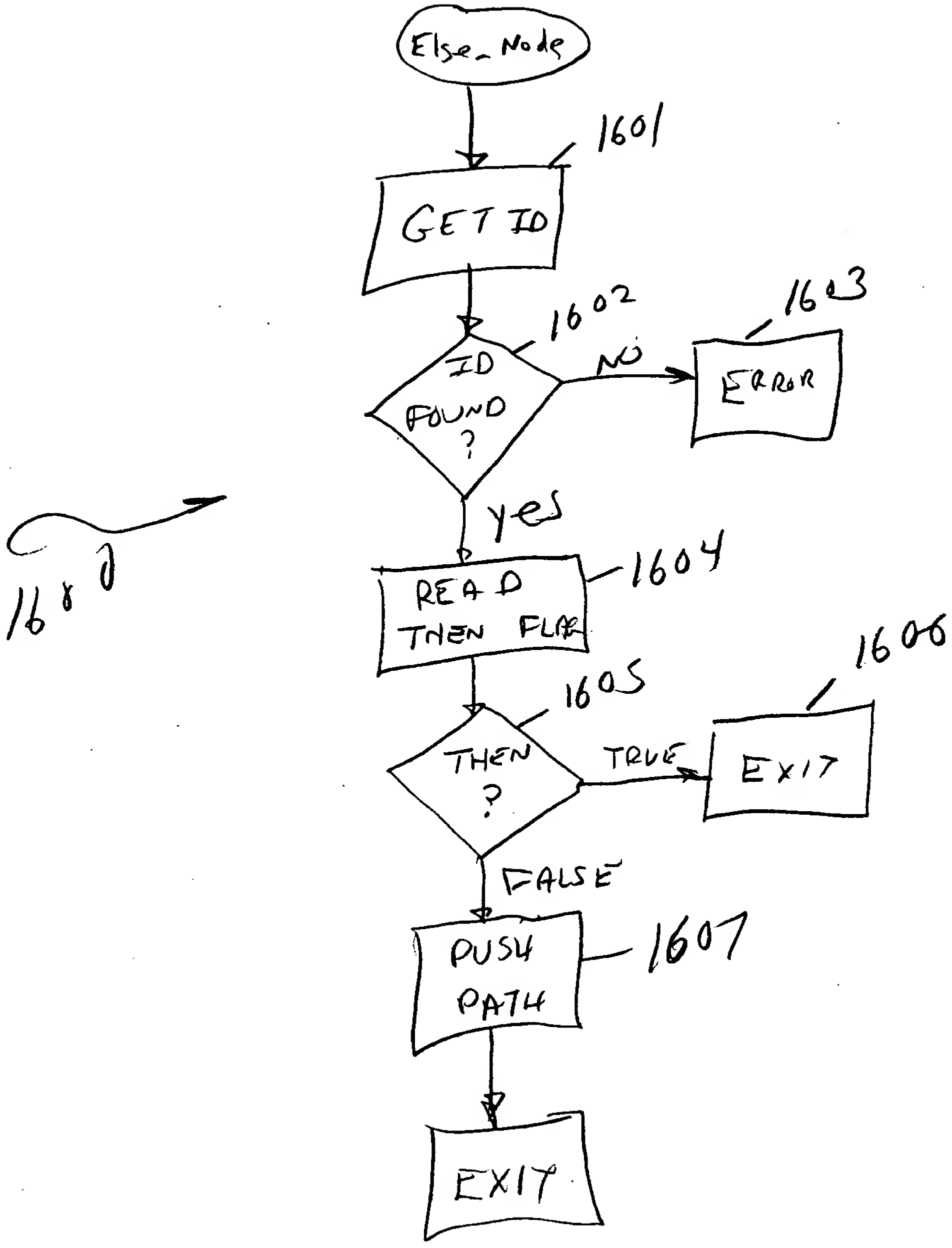

Else_Node
1601
GET ID
1602
ID FOUND ?
NO
1603
ERROR
yes
1608
1604
READ THEN FLAG
1605
THEN ?
TRUE
1606
EXIT
FALSE
1607
PUSH PATH
EXIT

Fig. 16